

# HAKAN OKAY

343-297-1355 | [hokay.ca@gmail.com](mailto:hokay.ca@gmail.com) | Ottawa, ON

[hakanokay.dev](https://hakanokay.dev) | [linkedin.com/in/hakan-okay](https://linkedin.com/in/hakan-okay) | [github.com/h-okay](https://github.com/h-okay)

## EXPERIENCE

### Software Engineer - [TwinsMusic Enterprises](#) - Ottawa, ON

September 2023 - Present

- Redesigned and redeveloped Musme Library, an online, subscription-based music library for content creators using modern web technologies, reducing page load times by 50%. Mentored the other four contributors and did code reviews.
- Implemented a new content management system to easily create, access, delete or update the platform's content and manage different aspects of the website and served it over a dashboard accessible through JWT authentication.
- Migrated to a new, secure system architecture handling how the content should be stored, accessed and downloaded using AWS S3 pre-signed URLs and JWT authentication. Used Prisma to create the data model to log/store user information.
- Integrated cloud platforms and services to create a secure, scalable platform. Used Supabase for the Postgres database, Uploadthing for handling S3 file uploads, Vercel for deployments and hosting and GitHub Actions for CI/CD pipelines.

### Software Engineer - [hakanokay.dev](#) - Ottawa, ON

February 2023 - September 2023

- Trained a machine learning model for an e-commerce business serving ~4700 users monthly. The model predicts the likelihood of conversion based on user actions, resulting in 15% revenue growth through personalized marketing.
- Developed a containerized API using FastAPI and Docker to serve machine learning models, deployed on Google Cloud. Created a drag-and-drop interface to upload new models using Streamlit.
- Developed a web application using Next.js, FastAPI, Pydantic, MongoDB and Docker to manage the sale records of a store, increasing overall efficiency in managing sales transactions and reducing data-related issues by 80%, deployed on Vercel.
- Migrated a PHP service handling external CRM data to Python. Updated the data extraction and transformation scripts and improved the efficiency of the ETL process by 25%. Implemented additional data validation steps using Pydantic.

### Software Engineer - [Bruin](#) - Ottawa, ON

March 2022 - February 2023

- Built an SQL generation engine using Jinja, Python and SQL to automate the data modelling and warehousing process for products with similar data characteristics, resulting in a 20% faster onboarding process.
- Debugged issues within the parser of a specialized SQL-like querying language designed for simpler and more efficient cloud querying within the data platform. Improved test coverage and added more documentation.
- Implemented new features to a CLI tool enabling cross-functional teams to validate and run data transformations using SQL and Python on the same pipeline, written in Go, leading to a 30% increase in development efficiency.
- Created and optimized RESTful API endpoints querying BigQuery warehouses to generate static analytics reports, improving response times by 15%, adding support for customizations, and integrating more KPIs.
- Built and managed ETL pipelines to process ~1 billion rows of user-generated data daily, originating from 10 clients across 35 mobile applications and various backends. Used Snowflake, BigQuery and Redshift for warehousing.

## SKILLS

**Languages:** Python, SQL, TypeScript, JavaScript, Go, Java

**Frameworks:** React, Next.js, Node.js, Tailwind, FastAPI, Spring Boot, Pandas, Scikit-learn

**Tools:** Linux, Git, Docker, Airflow, Prisma, GCP, AWS

**Databases:** MySQL, PostgreSQL, MongoDB

## PROJECTS

**Quill:** Chat with your PDF files.

TypeScript, React, Next.js, Tailwind, tRPC, Pinecone, Stripe  
Live at [quill.hakanokay.dev](https://quill.hakanokay.dev)

**WorldMaker:** Create cities in your browser.

Plain JavaScript, Canvas API, Data Structures (mainly Graphs)  
Live at [selfdriving.hakanokay.dev](https://selfdriving.hakanokay.dev)

## EDUCATION

### Algonquin College

Diploma in Computer Programming | Honours

September 2022 - January 2024

Ottawa, ON

### Miul & Data Science Academy

Certificate of Data Science and Machine Learning | Bootcamp

December 2021 - March 2022

Izmir, Turkey

### Akdeniz University

Bachelor of Science in Engineering

September 2014 - September 2019

Antalya, Turkey